

Date: Fri, 22 Jan 93 13:09:58 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #96  
To: Info-Hams

Info-Hams Digest                      Fri, 22 Jan 93                      Volume 93 : Issue    96

Today's Topics:

                    900 MHz Amp or Info Wanted  
                    Carolina Windom (2 msgs)  
                    DSP and The Future (2 msgs)  
                    ENDURANCE  
                    FCC General Radiotelephone license in aviation  
                    License Delays  
                    mfj swr meter info wanted  
                    New Ham! Need Radio!  
                    Real Hams?  
                    Retuning Commercial Gear  
                    RSGB Solicits Input on Code-free HF licence.  
                    running 300-ohm twinlead thru wood  
                    The 220 MHz debacle.

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.  
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Date: 22 Jan 93 18:00:50 GMT  
From: mvb.saic.com!unogate!news.service.uci.edu!usc!howland.reston.ans.net!  
spool.mu.edu!sdd.hp.com!cs.utexas.edu!ut-emx!39.159.83.128.in-addr.arpa!  
miles@network.UCSD.EDU  
Subject: 900 MHz Amp or Info Wanted  
To: info-hams@ucsd.edu

Does anyone out there in Greater Netland have any experiences with 900  
MHz amplifiers? I am looking for one to boost 5 or 10 mW of video up to  
about a watt.

Light weight is an important factor...which is why I hesitate to get  
DownEast's 10 mW -> 10 watt amp...it is gonna take some heavy batteries.

Any suggestions for someone with AF & HF kit experience, but little  
knowledge of 900 MHz construction techniques and no UHF test equipment?

= = = = =  
\_ Miles Abernathy, N5KOB =  
| |\_\_ miles@emx.cc.utexas.edu =  
\_ | | POB 7580, Austin TX 78713 =  
\ \* / University of Texas @ Austin =  
 \ / tel. (512) 471-6521 =  
= = = = =

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Date: 22 Jan 93 16:48:29 GMT  
From: auratek!epacyna@uunet.uu.net  
Subject: Carolina Windom  
To: info-hams@ucsd.edu

I have heard reference to an antenna called the Carolina Windom. I have not  
been able to find any details/description of this antenna. Can someone out  
there provide a short summary/diagram?

Thanks in advance.

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Date: 22 Jan 93 19:40:35 GMT  
From: news.service.uci.edu!ucivax!gateway@network.UCSD.EDU  
Subject: Carolina Windom  
To: info-hams@ucsd.edu

>I have heard reference to an antenna called the Carolina Windom. I have not  
>been able to find any details/description of this antenna. Can someone out  
>there provide a short summary/diagram?

In a recent issue of CQ (I think it was January), Bill Orr had a good run  
down off-center fed antennas.

Greg KD4HZ // g-taylor4@tamu.edu

-----  
Date: Fri, 22 Jan 1993 18:36:15 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!stanford.edu!Csl!  
kawai@network.UCSD.EDU

Subject: DSP and The Future  
To: info-hams@ucsd.edu

Bill VanHorne (wvhorn@magnus.acs.ohio-state.edu) comments:

| I spent part of last Saturday playing with ... W9GR's DSP box (described  
| in Sept. QST). I'm impressed. ... With this \$150 "toy" intercepting the  
| audio, I had no need for notch filters, noise blankers, attenuators,  
| PBT, slope tuning, or any of those high-priced goodies ...

Thanks for the review. I had thought the particular DSP box you used was not that great, especially since I understand it takes the audio output of the transceiver, not any of the IF outputs. Your review is tempting me to try out the box.

| Given the \*current\* state of DSP technology, why do we need all those  
| reception aids? Why do we need multiple IF stages with filtering? For  
| that matter, why the heck do we even need to continue to use super-het  
| receivers at all? Couldn't we simply go to direct conversion with DSP  
| processed audio? If we can, why are we still paying \$2000-\$3000 for  
| transceivers with all that expensive super-het stuff tacked on? Why  
| haven't the manufacturers started producing cheaper receivers with DSP  
| working on the audio?

There are at least three factors here that affect HF receiver design. Other people may point out more. The factors I know about are:

- (1) Currently, much higher front-end sensitivity is available using analog circuitry. Direct digital conversion of radio waves is not sensitive enough for practical purposes. So even if you elect to use DSP for the later stages, the front-end will have to remain analog. Keep in mind this is for HF receivers, where substantial dynamic range is required.
- (2) Lack of digital technology among amateur radio equipment manufacturers. This may surprise you, but sadly, it is true, at least for Japanese manufacturers that specialize in amateur radio gear, such as Kenwood, Icom, and Yaesu. Their engineers are extremely knowledgeable about analog equipment, but lack hands-on experience in digital circuitry. This doesn't mean they don't know digital theory. In fact, many engineers are becoming frustrated -- for instance, when Kenwood designed their DSP unit, they had to work with a low-performance chip due to cost reasons, and they were quite upset. Wait a few years, and you should see gradual improvement.

There is a definite trend of technology transfer from commercial equipment to amateur gear. Japan Radio Corp (JRC), which does not have a strong presence in amateur radio but is extremely prominent in commercial radios -- for HF, maritime radios in particular -- uses

advanced DSP circuitry which is far more advanced than what you find in amateur radio equipment. This technology will eventually trickle down to amateur equipment. But don't count on JRC doing that (smile).

- (3) Amateur radio equipment does not sell in large quantities, and end-users are not willing to part with large sums of money. Therefore, manufacturers hesitate to invest in large-scale development of novel technology. Each manufacturer will probably sell less than 5,000 units of their flagship HF transceivers during their product lifetimes. This accounts for the high profit margin on top-of-the-line rigs -- almost 50 percent is profit, which will be invested in developing the next generation of transceivers. Re-tooling factories and service centers to accomodate new technology (not necessarily digital) is expensive, and may require more funds than is available to the company. Therefore, product improvements will be incremental in nature, and in all likelihood will lag commercial technology.

-goh-

----- Speech Research Program, SRI, Menlo Park, CA 94025-3493 USA  
--- Goh Kawai --- work:(415)859-2231 fax:(415)859-5984 home:(415)323-7214  
----- internet: kawai@speech.sri.com radio: n6uok and 711fqe

-----  
Date: Fri, 22 Jan 1993 18:00:31 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!netsys!news.cerf.net!usc!sdd.hp.com!  
cs.utexas.edu!torn!csd.unb.ca!news.ucs.mun.ca!kean.ucs.mun.ca!  
jcraig@network.UCSD.EDU  
Subject: DSP and The Future  
To: info-hams@ucsd.edu

In article <1993Jan22.155944.22008@magnus.acs.ohio-state.edu>,  
wvhorn@magnus.acs.ohio-state.edu (William VanHorne) writes:

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. .  
> My questions for the net:  
>  
> Given the \*current\* state of DSP technology, why do we need all those reception  
> aids? Why do we need multiple IF stages with filtering? For that matter,  
> why the heck do we even need to continue to use super-het receivers at all?  
> Couldn't we simply go to direct conversion with DSP processed audio? If we  
> can, why are we still paying \$2000-\$3000 for transceivers with all that  
> expensive super-het stuff tacked on? Why haven't the manufacturers started  
> producing cheaper receivers with DSP working on the audio? What have I  
> missed? Am I asking too many questions?

>

> ---Bill VanHorne

>

It's easier to amplify RF at a single frequency than a band of freqs.  
This single freq. is the IF in the superhet.  
DSP on the audio will do nothing for spurious mixing products, though. But if  
you could DSP the IF then you'd have some receiver! Better yet,  
put a broad band amp between your antenna and a DSP that could sample  
at say 100 MHz...

It's probably only a matter of time before they'll make ultra fast  
DSP's and analogue radio technology will be stashed away with the  
pentagrid converters and coherers!

Joe VO1NA, top band CW junkie.

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Date: 22 Jan 93 18:26:05 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: ENDURANCE  
To: info-hams@ucsd.edu

A few days ago, Joe Mastroianni, AA6YD, invited all of us here in net-land to  
partake of his short story "ENDURANCE" in the Feb issue of QST. This message  
of congratulations is for Joe....

Just finished "ENDURANCE"....couldn't put it down !! As a fan(atic) of "real"  
science fiction for most of my 49 years, I feel qualified to assign such  
superlatives as "top-notch" and "first-rate" to your story, Joe. Was this  
your FIRST effort? If so, it had best NOT be your last....you have at least  
this one new fan begging for MORE !

If you like exciting, adventurous story-telling....that combines the best  
elements of sci-fi with our beloved radio hobby....you absolutely MUST read  
"ENDURANCE".....I rate it \*\*\*\* !!!!

73.....Jerry, K1MER

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Date: 22 Jan 93 19:37:33 GMT  
From: news.tek.com!gvgpsa!gvgspd.gvg.tek.com!gvgdsd!mam@uunet.uu.net  
Subject: FCC General Radiotelephone license in aviation  
To: info-hams@ucsd.edu

In article <1993Jan15.173610.5480@crash> jav@crash.cts.com (Javier Henderson)  
writes:

>So, if I go to Canada (or any other country, for that matter) and try to  
>get checked out at the local FBO, will I still need the FCC Restricted  
>Radio Telephone Operator's Permit?

>Would my ham radio license be an acceptable substitute for the FCC Restricted  
>thingamabob?

An Amateur Radio License is not applicable - you must possess a FCC Restricted  
Radio Telephone Operator's Permit or a General Radiotelephone License.

This applies to operating an aircraft equipped with radios licensed with  
an FCC Aircraft Station License. The operator's permit requirement is  
waived when the aircraft is operating within the bounds of the United  
States.

Operating an aircraft with radios licensed to another country (than your  
own) in that country would require compliance to their regulations. If you  
find yourself in that situation, ask for details.

Operating an aircraft with radios licensed to another country in yet  
another country - well, ask the regulatory agencies involved. They  
get paid for figuring out that sort of thing.

And this is radio regulatory thing - in the US, the FAA would rather not  
be involved, so you need to chat with the FCC.

-Mark

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Date: Fri, 22 Jan 1993 17:32:43 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!stanford.edu!kronos.arc.nasa.gov!  
butch!netcomsv!netcom.com!mont@network.UCSD.EDU  
Subject: License Delays  
To: info-hams@ucsd.edu

If things keep going the way they are, something is bound to happen.

Waiting 2-3 months for an upgrade is not a big problem, since we  
have the /kt /ag /aa /ae suffixes for use during this period.

Waiting 2-3 months for your FIRST license seems outrageous. I guess I  
just missed the floodgates, got mine in 5/92 after only waiting 5 weeks.  
I cannot imagine having to wait 2-3 months.

Since all those who are waiting for their first license have already  
done everything required to get it, the ONLY item missing is their

callsign. Seems like we/ARRL/FCC should be able to come up with some way to at least assign a temporary call to a licensee that can be used until they get their official call/license from FCC.

Why couldn't the examiners be supplied with temp. license stickers with temp callsigns like a fishing or hunting license, valid for 6-12mo? One part of the sticker could be attached to the 610 form sent FCC and the other issued to the new first time licensee.

Well, it just seems like something is going to give, and probably not to long from now. At the current rate that the backlog seems to be growing, it won't be long for it to take up to a year to get your ticket...

Another thought. If they eliminate 2 of the license classes, won't that eliminate 2/5ths (or more) of the work for FCC?? How about this:

technician class	no code,	xx questions,	same priv. as tech today plus code on some sub-bands like 6m, 10m and/or 15m (they need someplace to learn and practice code)
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general class	7 wpm,	xx questions,	same priv. as gen. today
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advanced class	10 wpm,	xx questions,	all privledges
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(xx questions = same kind of questions as today from the question pools, just combine the elements into only 3 tests instead of 5)

The current backlog is for the birds. Here we are trying to encourage more to become hams with the current examination process, no-code tech class license, and such, and all the while it is becoming increasingly more discouraging waiting and waiting for your first callsign.

Maybe FCC could have two seperate addresses for 610 forms. One address for new licenses and one for upgrades. Then FCC could process all the new licensees first and get them their callsigns faster and then process all the upgrade forms.

What do you think can be done to improve FCC's licensing process?

73,

--

Mont Pierce

+-----+

Ham Call: KM6WT	Internet: mont@netcom.com	
bands: 80/40/20/2	IBM vnet: mont@vnet.ibm.com	
modes: cw,ssb,fm		
qth: Fremont, CA	Religion: Jehovah's Witnesses	9/72

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Date: 22 Jan 1993 18:29:03 GMT  
From: agate!spool.mu.edu!sol.ctr.columbia.edu!usenet.ucs.indiana.edu!  
master.cs.rose-hulman.edu!master.cs.rose-hulman.edu!news@ames.arpa  
Subject: mfj swr meter info wanted  
To: info-hams@ucsd.edu

Does anyone out there have any firsthand info about the MFJ 160-m through  
2-meter swr analyzer with digital freq readout?

Anybody own one and like to tell me ur experiences?

      Please don't send me a post of MFJ bashing. I  
      have some of their products and I'm hip!

One particular question: Does the vswr meter work "in real time" or do  
you have to set a max then switch to refl to find the swr like on their  
tuners that don't have cross needle meter?

In other words, can you vary the frequency and watch the meter while you  
vary it and see the vswr displayed?

Tnx vy mch in adv fer ani info. (That's cw talk!)

73 de Jack, K9CUN

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Date: 22 Jan 93 18:38:43 GMT  
From: saimiri.primate.wisc.edu!zaphod.mps.ohio-state.edu!rphroy!link.ph.gmr.com!  
vbreaault@ames.arpa  
Subject: New Ham! Need Radio!  
To: info-hams@ucsd.edu

In article <1993Jan22.152007.15010@ke4zv.uucp> gary@ke4zv.uucp (Gary Coffman)  
writes:

      In article <1993Jan21.152246.1@levy.fnal.gov> levy@levy.fnal.gov writes:  
      >Well, my license showed up yesterday (N9RXF), and I'm in need of a radio (I've



>been lurking on the local repeaters with my scanner, I didn't see any point in  
>spending money on a xmitter until I could use it). I would like, to start  
out,

>a dual-band HT covering 2 & 10 meters. Any good (but not necessarily  
>expensive) suggestions?

Congratulations on the license Mark.

I second that! Welcome to the hobby.

<stuff deleted>

Probably the best  
bet for a 10 meter rig is the Radio Shack unit now on closeout for  
\$199, but it's a mobile/base type radio and not a belt dragger.

The closeout price is something like \$150-\$160, if my sieve-like  
memory is working today. Anyway, it's a lot less than \$200.  
It does 25 Watts CW or USB. Model HTX-100

<stuff deleted>

--

-val-

Val Breault - GM Research - vbreault@gmr.com - N8OEF

Instrumentation dept., 30500 Mound Rd., Warren, MI 48090-9055

The opinions expressed by the author do not necessarily reflect  
those of GMR or those of the General Motors Corporation.

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  \    / |
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    \/_|___
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Date: 22 Jan 93 17:56:26 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Real Hams?  
To: info-hams@ucsd.edu

Someone had once commented to me that "Real Hams" (United States folks) had  
callsigns that begin with either W<number> or K<number>! Oh well...

Robert  
N2JTX  
^

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+-----+-----+
| Robert G. Schaffrath, N2JTX | Internet:   rgs%wpmax2%gfimda@uunet.uu.net |
| Systems Engineer          | CompuServe: 70541,435 |
| Maxwell House Coffee Company | Phone:      914-335-2777 |
| General Foods USA          | +-----+ |
| Kraft General Foods Corporation | : ) : ) : ) SMILE!! : ) : ) : ) |
```

| Philip Morris Companies | Everyone will wonder what you are up to!! |  
+-----+-----+

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Date: Fri, 22 Jan 1993 17:13:22 GMT  
From: era!mark@uunet.uu.net  
Subject: Retuning Commercial Gear  
To: info-hams@ucsd.edu

Has anyone seen books (doubtful) or files in an archive (more probable) on using commercial gear in the ham bands?

Lately I've been toying with the idea of finding some old commercial gear to retune and use on the 2m and 70cm bands. Mostly I'm looking for handhelds and low-power mobiles (10-20 watts) to have around the house and in the office. Bells and whistles aren't necessary; just something with two or four channels that can be set up to use on repeaters or for simplex if necessary. PL encode/decode would be nice, but isn't a must.

I do know that I'd like to stick with Motorolas, since anyone I've ever run into with retuned gear has one. What I \_don't\_ know is how all of the different flavors (Micor, etc...) fit into the scheme of things, what's worth getting, what's worth avoiding and how to obtain service manuals. If somebody could fill me in on any part of that (yes, it's a mouthful), I'd love to hear from you.

TNX ES 73.

- Mark

.....  
: Mark A. Feit                   KD4TAJ : Internet: mark@era.com       :  
: Engineering Research Associates : USENET: ...!uunet!era!mark       :  
:.....

-----  
Date: 22 Jan 93 16:13:07 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: RSGB Solicits Input on Code-free HF licence.  
To: info-hams@ucsd.edu

The RSGB HF Committee is actively soliciting input and opinion on the idea of a code-free HF licence. According to a recent editorial in RADCOM, they are open to input from members and non-members alike. Anyone wishing to have input to the discussion should write to:-

RSGB HF COMMITTEE  
C/O RADIO SOCIETY OF GREAT BRITAIN  
LAMBDA HOUSE  
CRANBORNE ROAD  
POTTERS BAR  
HERTS EN6 3JE  
ENGLAND

and should mark their envelope 'CODE FREE LICENCE' in the bottom left corner.

Go on, tell them what \*you\* think should be the future!

1 2 2 4 4 5 5 3 3 1 1	Pete Lucas G6WBJ
2 1 4 2 5 4 3 5 1 3 2	(pjml%uk.ac.nsw.swmis@nsfnet-relay.ac.uk)
3 4 1 5 2 3 4 1 5 2 3	Holbrook House
4 3 5 1 3 2 1 4 2 5 4	Station Road Swindon
5 5 3 3 1 1 2 2 4 4 5	PJML@uk.ac.nsw.swmis

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Date: 22 Jan 93 19:36:52 GMT  
From: news.service.uci.edu!ucivax!gateway@network.UCSD.EDU  
Subject: running 300-ohm twinlead thru wood  
To: info-hams@ucsd.edu

>>> I have a similar situation in that I intend to run 450ohm twin lead  
>>> through a wooden window frame -- but will I have a problem with arcing  
>>> if I'm only running 100-150 watts??

With a multi-band wire I run open wire to a balun and RG58 to the transmatch in house from there. Its only about 5 feet of coax from the balun to the transmatch so the mismatches that exist don't create significant losses - even running qrp which is what I do most of the time.

Speaking of which, I haven't had to worry about it (although I have run up to 50 watts out with no problems) but if you do this you might want to check breakdown parameters on coax first.

Greg, KD4HZ // g-taylor4@tamu.edu // voice 409-845-4445 // fax 409-847-8744

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Date: 22 Jan 93 18:23:58 GMT  
From: psinntp!arrl.org@uunet.uu.net  
Subject: The 220 MHz debacle.  
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, bob@kc2wz.bubble.org (Bob Billson) writes:

>MUSCHINSKE%39A.DEcnet@scfb.chinalake.navy.mil (39A::MUSCHINSKE) says:  
>>And to think the FCC didn't have a plan when it took away 220-222 MHz ;-(!  
>  
>We hams didn't have much of a plan either or we would not have lost it. Use  
>it or lose it! With the recent thread on 70 cm close repeaters in mind how  
>many of us are watching out for our microwave bands? I hope we don't expect  
>the ARRL to come to our rescue. No slight of the ARRL intended here. Seems  
>too many hams have the attitude that "the League will save it for us" instead  
>adding our voices to the Leagues. Bet the FCC got more comments about the  
>no code proposal than the lose to 220-222. <sigh>

(Speaking for myself, \*not\* the League) my impression is that the problem was not lack of response by amateurs--individually or via the ARRL. Rather, the reallocation was a "done deal" right from the start, and nothing we could have done short of getting a Congressional or judicial override would have changed the FCC's mind.

The comedy of errors that has resulted from the attempts to put 220-222 into land mobile service are an embarrassment to the FCC, in my opinion.

-----  
Jon Bloom, KE3Z | jbbloom@arrl.org  
American Radio Relay League | Justice is being allowed to do whatever  
225 Main St. | I like. Injustice is whatever prevents  
Newington, CT 06111 | my doing so. -- Samuel Johnson  
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Date: Fri, 22 Jan 1993 19:48:11 GMT  
From: sdd.hp.com!ux1.cso.uiuc.edu!rtaylor@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <fred-mckenzie-200193151838@k4dii.ksc.nasa.gov>,  
<1993Jan21.125436.4514@klaava.Helsinki.FI>, <fred-  
mckenzie-210193182431@k4dii.ksc.nasa.gov>  
Subject : Re: running 300-ohm twinlead thru wood

fred-mckenzie@ksc.nasa.gov (Fred McKenzie) writes:

>In article <1993Jan21.125436.4514@klaava.Helsinki.FI>,  
>stickler@klaava.Helsinki.FI (Patric M Stickler) wrote:  
>> I have a similar situation in that I intend to run 450ohm twin lead  
>> through a wooden window frame -- but will I have a problem with arcing  
>> if I'm only running 100-150 watts??

>Patrick-

I run all my coaxes, twinlead, rotor cable, etc through seperate

1/2 in dia white plumbing type PVC tube. I run 800 watts out  
through 300 ohm transmitting twin lead to a long wire V-beam  
(unmatched at the antenna) with no problems. K9ALD

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Date: 22 Jan 1993 17:58:07 GMT  
From: mvb.saic.com!unogate!news.service.uci.edu!usc!news.bbn.com!bbn.com!  
levin@network.UCSD.EDU  
To: info-hams@ucsd.edu  
  
References <1993Jan20.075452.1@camins.camosun.bc.ca>,  
<1jodgsINNfhs@lucy.cs.widener.edu>, <1993Jan22.135838.15824@cbnewse.cb.att.com>-  
Subject : Re: NEED HELP FINDING OLD CALLSIGN

In <1993Jan22.135838.15824@cbnewse.cb.att.com>  
parnass@cbnewse.cb.att.com (Bob Parnass, AJ9S) said:  
|Also, some people \*incorrectly\* assume that you can tell how  
|long a ham has been licensed from the data on these servers.

True, but you do get an upper bound!

/JBL

=  
Nets: levin@bbn.com | "GO TO JAIL. Go directly to jail. Do not pass  
POTS: (617)873-3463 | Go. Do not collect \$200."  
N1MNF | -- Parker Brothers

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End of Info-Hams Digest V93 #96  
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